

4.5 PSP Cover Sheet

Proposal Title: Butte Creek Acquisition, Revegetation and Restoration Assessment Project
Applicant Name: The CSU, Chico Research Foundation on behalf of Butte Creek Watershed
Conservancy
Mailing Address: Kendall Hall, Room 114, Chico, California 95929-0870
Telephone: 530-898-5026
Fax: 530-898-6804
Email: kcooper-carter@csuchico.edu

Amount of funding requested: \$ \$446,543 for 3 years

Indicate the Topic for which you are applying (check only one box).

- | | |
|---|---|
| <input type="checkbox"/> Fish Passage/Fish Screens | <input type="checkbox"/> Introduced Species |
| <input checked="" type="checkbox"/> Habitat Restoration | <input type="checkbox"/> Fish Management/Hatchery |
| <input type="checkbox"/> Local Watershed Stewardship | <input type="checkbox"/> Environmental Education |
| <input type="checkbox"/> Water Quality | |

Does the proposal address a specified Focused Action? X Yes no

What county or counties is the project location in? Butte County

Indicate the geographic area of your proposal (check only one box):

- | | |
|---|---|
| <input type="checkbox"/> Sacramento River Mainstem | <input type="checkbox"/> East Side Trib: <u> </u> |
| <input checked="" type="checkbox"/> Sacramento Trib: <u>Butte Creek</u> | <input type="checkbox"/> Suisun Marsh and Bay |
| <input type="checkbox"/> San Joaquin River Mainstem | <input type="checkbox"/> North Bay/South Bay: <u> </u> |
| <input type="checkbox"/> San Joaquin Trib: <u> </u> | <input type="checkbox"/> Landscape (entire Bay-Delta watershed) |
| <input type="checkbox"/> Delta: <u> </u> | <input type="checkbox"/> Other: <u> </u> |

Indicate the primary species which the proposal addresses (check all that apply):

- | | |
|--|---|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | |
| <input type="checkbox"/> Winter-run Chinook salmon | <input checked="" type="checkbox"/> Spring-run chinook salmon |
| <input checked="" type="checkbox"/> Late-fall run chinook salmon | <input checked="" type="checkbox"/> Fall-run chinook salmon |
| <input type="checkbox"/> Delta smelt | <input type="checkbox"/> Longfin smelt |
| <input type="checkbox"/> Splittail | <input checked="" type="checkbox"/> Steelhead trout |
| <input type="checkbox"/> Green sturgeon | <input type="checkbox"/> Striped bass |
| <input checked="" type="checkbox"/> Migratory birds | <input type="checkbox"/> All chinook species |
| <input checked="" type="checkbox"/> Other: <u>Swainson's Hawk</u> | <input checked="" type="checkbox"/> All anadromous salmonids |

Specify the ERP strategic objective and target (s) and the project addresses: Include page numbers from January 1999 version of ERP Volume I and II:

Butte Creek Stage 1 Actions for the Strategic Plan suggest creating cooperative partnerships between the Butte Creek Watershed Conservancy and local, state, and federal agencies in developing and implementing strategies "to protect and restore riparian habitat to improve base flows, and to reduce water temperatures" (SPER, Butte Creek Stage 1 Actions, Action 3, p. 79). Volume II: ERPP-Butte Basin Ecological Management Zone Vision states that "restoring habitat in Butte Creek would allow the spring-run and fall-run chinook population to achieve increased annual spawning populations"

(Vol. II ERPP, February 1999, p. 261). Many directed benefits arise from protecting a wide array of habitats, including the recovery of endangered species and the production of economically important recreation and commercial species. CALFED recovery goals for spring-run chinook salmon call for restoring and protecting "natal, rearing, and migratory streams within the Sacramento River Basin" (Vol. I ERPP, February 1999, p. 217). In order to increase natural food web productivity and increase populations of desired fish and wildlife species, CALFED calls for the elimination, "or control to a level of little significance, all undesirable non-native species, where feasible" (Vol. I ERPP, February 1999, p. 451). This proposal clearly meets CALFED's goals, but perhaps more importantly it brings together new partners willing to work together in the watershed planning process.

Indicate the type of applicant (check only one box):

- | | |
|--|---|
| <input type="checkbox"/> State agency | <input type="checkbox"/> Federal Agency |
| <input type="checkbox"/> Public/Non-profit joint venture | <input type="checkbox"/> Non-profit |
| <input type="checkbox"/> Local government/district | <input type="checkbox"/> Private party |
| <input checked="" type="checkbox"/> University | <input type="checkbox"/> Other: _____ |

Indicate the type of project (check only one box):

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> Planning | <input checked="" type="checkbox"/> Implementation |
| <input type="checkbox"/> Monitoring | <input type="checkbox"/> Education |

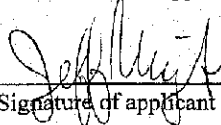
By signing below, the applicant declares the following:

- 1.) The truthfulness of all representations in their proposal;
- 2.) The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and
- 3.) The person submitting the application has read and understood the conflict of interest and confidentiality discussion on the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

The CSU, Chico Research Foundation

Jeff Wright

Printed name of applicant



Signature of applicant



BUTTE CREEK

WATERSHED CONSERVANCY

P.O. Box 1611, Chico CA 95927-1611

April 14, 1999

CALFED Bay-Delta Program Office
1416 Ninth Street, Suite 1155
Sacramento, California 95814

Subject: Support for 1999 CALFED Bay-Delta ERPP Proposal

Dear Review Panel:

In anticipation of the 1999 CALFED ERPP Proposal Solicitation Package, the Butte Creek Watershed Conservancy, the County of Butte, and the University Foundation CSU, Chico have collaborated to prepare the attached proposal: *Butte Creek Acquisition, Revegetation, and Restoration Assessment Project*. The Butte Creek Watershed Conservancy has worked with all of the relevant stakeholder groups to develop the attached comprehensive project for this important watershed. This project will go a long way towards meeting the long-term objectives of the CALFED Bay-Delta Program to restore ecological health and improve water management for beneficial uses of the Bay-Delta system. If you have any questions regarding the Conservancy's support for this proposal, please feel free to call the office at 530-893-5399.

For the Conservancy,


James Charles (Chuck) Kutz
Chairman, Board of Directors, Butte Creek Watershed Conservancy

cc: USFS (Russ Volke)
Butte County Water Division (Vicki Newlin)
CSU, Chico BCWP (Dr. Donald Holtgrieve)

Title Page

Title of Project

Butte Creek Acquisition, Revegetation, and Restoration Assessment Project

University Research Foundation, California State University, Chico

Jeff Wright, Director

California State University, Chico CA 95929-0425

530-898-5700 FAX: 530-898-6804 jwright@csuchico.edu

on behalf of

Butte Creek Watershed Conservancy

Watershed Coordinator: Brendan Vieg

P.O. Box 1611, Chico, California 95927

530-893-5399 FAX: 530-893-5399 vieg@ecst.csuchico.edu

County of Butte, Board of Supervisors

Chairman: Jane Dolan

County Building, 25 County Center Drive

Chico, California 95966

Project Participants and Collaborators

Butte Creek Watershed Conservancy

County of Butte

Durham Mutual Water Company

University Research Foundation, CSU Chico

Butte Creek Education Project

M&T Ranch

Type of Organization and Tax Status

University Research Foundation, CSU, Chico

Auxiliary organization of CSU, Chico as provided for in the Calif. Education Code, Title 5.

Tax Status: Non-profit educational corporation 501(c)3.

Tax Identification Number

Research Foundation, CSU, Chico: 68-0386518

Executive Summary

Project Title and Applicant Name

Butte Creek Acquisition, Revegetation, and Restoration Assessment Project

California State University, Chico, Research Foundation on behalf of Butte Creek Watershed Conservancy

Project Location, Description, and Primary Biological/Ecological Objectives

The location of the project is the Butte Creek watershed, Butte County (*see* attachment A). The specific location is approximately 2.5 miles southeast of the City of Chico (*see* attachment B) in the lower canyon reach of Butte Creek. The Butte Creek Ecological Preserve consists of three semi-contiguous units (Honey Run, Canyon Unit, Virgin Valley Unit). In December 1998, California State University, Chico (CSU, Chico) Research Foundation purchased the 93-acre Honey Run Unit from willing seller John McAmis. Historically, the site was extensively mined for gravel and then went through several planned development phases, from a sixteen-lot split to a final approved subdivision of four exclusive lots with extensive roads and development.

The Virgin Valley Unit and the Canyon Unit are owned by the Department of Fish and Game (DFG) and have recently been placed into joint management responsibility between DFG and CSU, Chico through a Memorandum of Understanding (MOU) (*see* attachment C). Due to budgetary constraints, DFG has no maintenance or enhancement funds for these properties. The three Units total approximately 375 acres. Finally, this reach has extensive rip-rap material (approximately 3,800 feet) placed along the banks to protect human life, the environment, and important property values (*see* attachment B). The floods of 1997 ravaged this alluvial reach of Butte Creek. During high water, the stream reclaimed an old channel bed and devastated large tracts of riparian forest. As part of the NRCS *Emergency Watershed Program*, rip-rap was placed to protect human life, the environment, and property, while the stream was returned to its pre-flood course to provide flows to the Parrott-Phelan Diversion structure. Besides Parrott-Phelan, this section of stream is also the location of the Durham Mutual Diversion Dam (both structures were recently upgraded with high flow fish ladders and screens). All of the Units are located east of Highway 99 and are easily accessible either via Honey Run Road or Highway 99.

This project will develop a unified management plan designed to protect, restore, and enhance approximately 4 miles of prime migratory, holding, and spawning habitat for the California threatened spring-run chinook salmon, fall-run chinook salmon, and the federally listed threatened steelhead trout. Additionally, the area is a migration and nesting area for threatened avian species including the bald eagle, Swainson's hawk, and numerous species of neotropical migrant birds. The proposal will be carried out in 4 phases: 1) acquisition from a willing seller of an approximately 9-acre parcel that will further connect and protect the semi-contiguous riparian corridor (*see* attachment B); 2) identification and removal of exotic species of flora; 3) revegetation of extensive areas of rip-rap and designated upland areas; 4) development of a comprehensive restoration strategy utilizing information derived from a *Stream Evaluation Program* being conducted by the California Department of Fish and Game, the in-progress Fluvial Geomorphology Study partnering CSU, Chico and Matt Kondolf, Ph.D., a review of property management plans prepared CSU, Chico, and results of a pilot study investigating a methodology for establishing riparian vegetation on cobble fields to be coordinated by Restoration Ecologist Thomas Griggs, Ph.D.

The exotic vegetation removal, riparian corridor property acquisition, and restoration implementation phases of this project will provide a framework for cooperative and unified management of the Butte Creek properties by CSU, Chico, the Butte Creek Watershed Conservancy, and DFG. The restoration implementation plan will emphasize fish and wildlife species and their habitats, including shaded riverine aquatic (SRA) habitat, cottonwood and oak riparian habitats, blue oak woodland habitat, mixed chaparral

habitat, and annual grassland habitat. Additionally, management will encompass providing limited, improved public access along the corridor. Management issues such as control of non-native species, restoration of impacted habitats, and use of the properties as educational resources are best addressed with a partnership approach. Finally, the pilot study investigating a methodology for establishing riparian plants on existing cobble fields left over from historic hydraulic and gravel mining will be applicable for restoration of cobble fields on other Central Valley streams (e.g., Yuba River, Tuolumne River, etc.).

Compatibility with CALFED Objectives

Butte Creek is one of the most significant tributaries of the Sacramento River that provides important habitat to many aquatic and terrestrial species including the spring-run chinook salmon, fall-run chinook salmon and steelhead trout (all CALFED 1st Tier Priority Species). It is the largest of the four remaining tributaries that support spring-run salmon, which were recently listed as threatened under the California Endangered Species Act. FY '97 and FY '98 CALFED Restoration Coordination Program funds have been provided for the acquisition and restoration of riparian habitat along Butte Creek (*SPER, Chapt. 6: Stage 1 Action Plan—Sacramento River Basin, Revised Draft: February 1999, p. 80*). This funding has been made available because it meets the CALFED goals to restore upper watershed processes that protect, restore, and maintain ecological functions and processes that create habitats for species that depend on the Delta, and reduce or eliminate stressors that impair their survival. Momentous local support and cooperation to expand these CALFED restoration activities is representative of the collaborators on this project proposal. Now is the time to continue support for the following CALFED's ERPP goals for the Butte Basin. Butte Creek Stage 1 Actions for the *Strategic Plan* suggest creating cooperative partnerships between the Butte Creek Watershed Conservancy and local, state, and federal agencies in developing and implementing strategies "to protect and restore riparian habitat to improve base flows, and to reduce water temperatures" (*SPER, Butte Creek Stage 1 Actions, Action 3, p. 79*). Volume II: ERPP—Butte Basin Ecological Management Zone Vision states that "[r]estoring habitat in Butte Creek would allow the spring-run and fall-run chinook population to achieve increased annual spawning populations" (*Vol. II ERPP, February 1999, p. 261*).

Budget Costs and Third Party Impacts

Applicant requests \$446,453 over the course of 3 years upon contract signature. No negative third party impacts would be realized from this project.

Applicant Qualifications

The CSU, Chico Research Foundation, the Butte Creek Watershed Conservancy, and the Butte Creek Watershed Project in the CSU, Chico Department of Geography and Planning, have successfully cooperated on several projects in the Butte Creek watershed. Complete qualifications for each entity can be found in the *Project Description* section of this proposal.

Monitoring and Data Evaluation

Extensive monitoring is planned for this project. Please refer to the *Monitoring and Data Evaluation* heading of the *Project Description* section of this proposal for complete details.

Local Support/Coordination with other Programs

The project will complement and build upon several ongoing and proposed collaborative planning and implementation projects within the watershed. See the *Project Description* section of this proposal for a complete listing of those coordinated projects.

Project Description

Proposed Scope of Work

This project will initiate a unified management plan designed to protect, restore, and enhance approximately 4 miles of prime migratory, holding, and spawning habitat for the California threatened spring-run chinook salmon, fall-run chinook salmon, and the federally listed steelhead trout. Additionally, the area is a migration and nesting area for threatened avian species including the bald eagle and Swainson's hawk. The proposal will be carried out in 4 phases: 1) acquisition from a willing seller of an approximately 9-acre parcel that will further connect and protect the semi-contiguous riparian corridor (see attachment B); 2) identification and removal of exotic species of flora; 3) revegetation of extensive areas of rip-rap and designated upland areas; 4) development of a comprehensive restoration strategy. Each Phase of this project, although interrelated with the other Phases, is autonomous and may be funded separately. The collaborating parties hope to see all Phases funded in order to initiate a comprehensive enhancement of this important 4-mile riparian reach of Butte Creek.

Phase I – Acquisition of Approximately 9-acre Myers Parcel.

Scheduled Timeframe: October 1999 – June 2000

Task 1 A cooperative effort between the Butte Creek Watershed Conservancy and CSU, Chico to purchase an additional piece of stream-side property from a willing seller to further connect the 4 mile semi-contiguous riparian habitat and to protect the floodplain from future development. Attached is a signed letter of intent between Linda Myers (seller) and the Butte Creek Watershed Conservancy (buyer) (see attachment D). This acquisition will further connect the mosaic of riparian habitats found in this reach of Butte Creek. The Research Foundation, through the Department of Geography and Planning will complete a Phase I Environmental Assessment (EA) which complies with the American Society for Testing and Materials (ASTM) Standard E1527-97, the *Standard Practice for Environmental Assessments: Phase I Environmental Site Assessment Process*. Once complete, the document will be reviewed by qualified CALFED personnel to ensure compliance with ASTM standards.

The Real Estate Division of the State Department of General Services will perform an appraisal review. The cost of this review, estimated to be \$1000, will be added to the existing budget. The Butte Creek Watershed Conservancy will take title to property by fee acquisition and will enter into the existing MOU between CSU, Chico and DFG for cooperatively managing all of the properties that constitute the Butte Creek Ecological Preserve. Deed restrictions will protect the property from future development.

Deliverable: Copy of Appraisal, Copy of Appraisal Review by the Real Estate Services Division of the State Department of General Services, Copy of Phase I EA for agency personnel review, Draft of conservation restrictions and management obligations of the Butte Creek Watershed Conservancy for the Myers property acquisition, Copy of Deed Restrictions, Copy of the Title after escrow closes.

Phase II – Identification and Removal of Non-Native Flora.

Scheduled Timeframe: October 1999 – March 2001

Task 1 The Butte Creek Ecological Preserve supports several riparian communities including gravel and sand bars, willow scrub, cottonwood forest, white alder forest, and several species of oak woodland. However, due to past disturbances and the close proximity to residential areas, recent graduate student flora assessments have detailed an unusually high percentage (44%) of non-native species. Major exotic species identified are star thistle (*Centaurea solstitialis*), tree-of-heaven (*Ailanthus altissima*), Scotch broom (*Cytisus scoparius*), Spanish broom (*Spartium junceum*), and Himalaya berry (*Rubus discolor*). The first task will entail a full-scale field survey and mapping to identify areas infested with exotics. The Virgin Valley Unit has been mapped already.

Deliverable: Exotic Species Identification Report

Task 2 – Development of Exotic Species Eradication Plan that includes treatment locations and methods (biological, chemical, and mechanical). Non-native control methods will be less harmful to the native species present than the ecological disruption caused by the invading species.

Deliverable: Exotic Species Eradication Plan.

Task 3 – Prepare environmental review and documentation as required by CEQA. Implement eradication plan utilizing Americorps workers and locally organized volunteers. Non-native vegetation may provide cover and food for wildlife species. Therefore, the eradication program will consider the impact to wildlife populations, and may be carried out in phases.

Task 4 – Perform follow-up eradication six months after initial eradication. Conduct a post-project evaluation of the native and non-native plants that re-colonize in the treatment areas.

Deliverable: Final Report documenting the extent of exotic flora on the Butte Creek Ecological Preserve.

Phase III – Revegetation of Extensively Rip-Rapped Areas and Designated Upland Areas.

Scheduled Timeframe: October 1999 – October 2000

Task 1 – During the high flows of the 1997 floods, Butte Creek reclaimed an old channel leaving a stretch of the old stream channel (site of an important agricultural diversion) dry and placing a major housing development in jeopardy of future flooding. Butte County's Office of Emergency Services, under the NRCS *Emergency Watershed Program*, excavated and returned Butte Creek to its former channel and stabilized three separate sites with approximately 3,800 feet of rip-rap. Limited funds are available for revegetating these sites and currently the areas remain predominantly devoid of vegetation. The first task of this phase of the project is developing a revegetation plan specific to initiating riparian plant cuttings to the rip-rap material. Additionally, through preliminary on-site and aerial photo analysis, Matt Kondolf, Ph.D., has determined that several upland areas are good candidates for revegetation (see attachment E).

Deliverable: Rip-rap and Designated Upland Area Revegetation Plan

Task 2 – Under the supervision the Butte County Office of Emergency Services, the Butte Creek Watershed Conservancy and CSU, Chico will work together to collect and purchase cuttings and seed stock from the Butte Creek Ecological Preserve, CSU, Chico University Farm, and local native plant nurseries. Additionally, the Butte Creek Watershed Conservancy expects to receive over 800 riparian species seedling from the National Tree Trust program. Butte County has allocated approximately \$4,000/year over 3 years for the revegetation project. The goal is to produce 7,600 plants. When the 3,800 feet of rock material are planted with the 7,600 plants, there will be approximately two trees or shrubs per foot of rip-rap. CSU, Chico and the Conservancy will coordinate Americorps workers and volunteers in the revegetation effort, including the designated upland areas. Import of soil and development of an irrigation system are necessary for site-specific areas that are not connected to the water table. This is a novel approach to planting an existing area of rip-rap. It will be a useful demonstration of its value to other projects in the Sacramento Valley.

Deliverable: Revegetation of previously barren, rip-rapped streambank and designated upland areas.

Phase IV - Develop a Consensus-Based Comprehensive Restoration Strategy and Plan for the Butte Creek Ecological Preserve.

Scheduled Timeframe: October 1999 – June 2001

Task 1 – Initiate a pilot study to determine the best methods to encourage capture of native tree and shrubs seeds (Fremont cottonwood, arroyo willow, Sandbar willow, white alder), their germination and their growth as SRA habitat on cobble-fields from historic mining activities. An excavator and bull-dozer will be used to create bays within the cobble-field and small terraces along its edge where naturally dispersed seed will fall. Careful monitoring of flows and elevations of water surface at the times of seed dispersal, seed

germination, and the rate at which the flows decline over the summer will result in a quantified prescription for manicuring cobble fields to promote their revegetation. The study will provide new information for developing adaptive management strategies for creating SRA habitat and stabilizing the cobble fields. Studies similar to this have been carried out on the Missouri River and the Platte River, however, none have happened in California with Fremont's cottonwood.

Deliverable: Report with a Quantified Prescription for Cobble-Field Restoration and Management.

Task 2 – A Restoration Strategy will be developed utilizing information derived from the *Aquatic Habitat and Stream Evaluation Program* being conducted by a team consisting of DFG and USFWS staff, the in-progress Fluvial Geomorphology Study partnering CSU, Chico and Matt Kondolf, Ph.D., review of property management plans prepared by DFG and CSU, Chico, and results of the pilot study investigating a methodology for establishing Shaded Riverine Aquatic vegetation on cobble fields. All of the previous studies will provide important data and recommendations for restoration efforts. A restoration committee will be developed with key individuals from the Butte Creek Watershed Conservancy, CSU, Chico, the County of Butte, and DFG. This restoration committee will utilize results of these studies and emphasize ecosystem processes using natural self-sustaining methods to develop a restoration strategy that enhances aquatic species habitat, stabilizes streambanks, and provides for flood control measures. Ultimately, once the comprehensive restoration strategy is complete, the collaborating parties will seek to leverage funds from multiple sources for implementation of the restoration strategy.

Deliverable: Comprehensive Butte Creek Ecological Preserve Restoration Plan for the Entire Reach, Including Riparian Communities (SRA), Chaparral, Oak Woodland, and Grassland Communities.

Project Management Phase – Managerial Oversight of Project.

Scheduled Timeframe: Length of Project

Task 1 – Throughout the life of the project there will be substantial administrative duties including, but not limited to, quarterly reporting, attendance at annual CALFED meetings, and general project management and coordination with the multiple collaborating entities.

Deliverable: Quarterly Reports, Final Report, and successful completion of project.

Location and/or Geographic Boundaries of the Project

The location of the project is the Butte Creek watershed, Butte County (*see* attachment A). The specific location is approximately 2.5 miles southeast of the City of Chico (*see* attachment B) in the lower canyon reach of Butte Creek. The Butte Creek Ecological Preserve consists of three semi-contiguous units (Honey Run Unit, Canyon Unit, Virgin Valley Unit). In December 1998, the CSU, Chico Research Foundation purchased the 90+ acre Honey Run Unit from willing seller John McAmis. Historically, this site was mined for gravel and then went through several planned development phases including a sixteen-lot split to a final approved subdivision of four exclusive lots with extensive roads and development. The Virgin Valley Unit and the Canyon Unit are owned by DFG and have recently been placed into joint management responsibility between DFG and CSU, Chico through a Memorandum of Understanding (MOU) (*see* attachment C). Due to budgetary constraints, DFG has no maintenance or enhancement funds for these properties. The three Units total approximately 375 acres. The planned 9-acre Myers Property acquisition (*see* attachment B) would be a key piece for further connecting and protecting this important riparian zone. Additionally, this stretch has extensive rip-rap material (approximately 3,800 feet) placed along the banks to protect human life, the environment, and important property values (*see* attachment B). Finally, this section of stream is also the location of the Parrott-Phelan and Durham Mutual Diversion Dams (two agricultural structures that were recently upgraded with high flow fish ladders and screens). *A collaborative restoration assessment addressing these ecological properties, diversion structures, and flood control measures will benefit the myriad beneficial uses along this reach of Butte Creek.*

Ecological/Biological Benefits

Ecological/Biological Objectives and Compatibility with Non-Ecosystem Objectives

Butte Creek is an important resource that supports several priority species and habitats. Within the Central Valley, spring-run chinook salmon, fall-run chinook salmon, and steelhead trout and their associated aquatic and shaded riverine aquatic habitats have been in decline for many years. Butte Creek contains 20+ miles of critical spawning and holding habitat for all three of these species, which have been listed or recommended for listing under both the California and Federal Endangered Species Acts. The key to sustaining and restoring healthy populations of these fish is protecting and restoring the habitats upon which they depend. DFG has determined that the Butte Creek Ecological Preserve has extreme value in terms of providing wildlife habitat and protection of critical shaded riverine and aquatic resources. The project proposal supports several actions and evaluations for Butte Creek found in the USFWS *Revised Draft Restoration Plan for the Anadromous Fish Restoration Program*. This project will develop and demonstrate collaborative strategies of channel and floodplain management, resulting in improvements for riparian plant species and water quality that would help to cool the stream, filter urban runoff, capture large woody debris, and increase water storage and groundwater recharge capabilities. The proposal provides benefits for other CALFED objectives including water quality, water storage, water temperature, and public education. Grassroots involvement will help to develop a stronger sense of stewardship for these areas. The unified partnership of CSU, Chico and the Conservancy will ensure that this proposal, as well as the long-term management of the Butte Creek Ecological Preserve, will be self-sustaining. These entities are dedicated to utilizing new information and applying it to adaptive management strategies for better preserving Butte Creek's resources. Where appropriate, a hypothesis has been presented for specific Phases of this project and can be found in the *Monitoring Section* of this proposal.

Linkages

FY '97 and FY '98 CALFED Restoration Coordination Program funds have been provided for the acquisition and restoration of riparian habitat along Butte Creek (*SPER, Chapt. 6: Stage 1 Action Plan—Sacramento River Basin, Revised Draft: February 1999, p. 80*). Funding for the McAmis Property from four different sources (NFWF, CALFED, USFWS, DFG, WCB) substantially expanded the contiguous riparian habitat protected under the Butte Creek Ecological Preserve and initiated the signing of an MOU between CSU, Chico and DFG for joint management responsibilities for the two DFG-owned canyon units. CALFED funding financed the Fluvial Geomorphology study being conducted by Matt Kondolf, Ph.D. The results of that study will be a major component of the overall restoration strategy of this proposal. Funding for the development of the Butte Creek Watershed Management Strategy from five different groups (CALFED, USFWS, NFWF, and Met Water) has provided the synergy and established the partnerships to bring this collaborative restoration proposal back to CALFED for funding.

Previous funding has been made available because it meets CALFED goals of restoring upper watershed processes that protect, restore, and maintain ecological functions and processes that create habitats for species that depend on the Delta, and reduce or eliminate stressors that impair their survival. Momentous local support and cooperation to expand these CALFED restoration activities is representative of the collaborators on this project proposal. It is appropriate for CALFED to continue financial and technical support for its ERPP goals for the Butte Basin. Butte Creek Stage 1 Actions for the *Strategic Plan* suggest creating cooperative partnerships between the Butte Creek Watershed Conservancy and local, state, and federal agencies in developing and implementing strategies "to protect and restore riparian habitat to improve base flows, and to reduce water temperatures" (*SPER, Butte Creek Stage 1 Actions, Action 3, p. 79*). Volume II: ERPP—Butte Basin Ecological Management Zone Vision states that "[r]estoring habitat in Butte Creek

would allow the spring-run and fall-run chinook population to achieve increased annual spawning populations" (*Vol. II ERPP, February 1999, p. 261*). Many directed benefits arise from protecting a wide array of habitats, including the recovery of endangered species and the production of economically important recreation and commercial species. CALFED recovery goals for spring-run chinook salmon call for restoring and protecting "natal, rearing, and migratory streams within the Sacramento River Basin" (*Vol. I ERPP, February 1999, p. 217*). In order to increase natural food web productivity and increase populations of desired fish and wildlife species, CALFED calls for the elimination, "or control to a level of little significance, all undesirable non-native species, where feasible" (*Vol. I ERPP, February 1999, p. 451*). This proposal clearly meets CALFED's goals, but perhaps more importantly it brings together new partners willing to work together in the watershed planning process.

System-Wide Ecosystem Benefits

Current efforts on Butte Creek that meet CALFED objectives and that provide synergy for this comprehensive restoration project are directed towards reduction of entrainment of salmonid juveniles, increased instream flows, improvement of adult anadromous fish passage, and protection of riparian habitat. In 1996, the Conservancy initiated and circulated a MOU to local, state, and federal agencies and other interested parties that focused on seeking cooperative solutions to restore and protect chinook salmon in Butte Creek. The Conservancy, working with the CSU, Chico, is developing a Watershed Management Strategy, central to which will be the enhancement and protection of Butte Creek's natural resources.

In addition to the efforts of the Conservancy, the agricultural community has undertaken substantial restoration activity. As a result of the M&T pump relocation on Big Chico Creek, a component of the project was an agreement to modify diversions from Butte Creek during certain key months to protect anadromous fish in Butte Creek. Under the agreement, up to 40 cfs of flow will be left in Butte Creek from October 1 through June 30 of each year. During 1994, the first fish screen on a Butte Creek diversion was installed at the Parrott-Phelan Diversion. Following installation of the fish screen in 1995, a new and improved fish ladder was constructed. During 1997, an inverted siphon was constructed under Butte Creek to convey flows delivered from the Feather River to the Western Canal Water District, initiating the removal of four additional agricultural structures. Three additional diversion dams (Durham Mutual, Adams, and Gorrill) along the valley reach of Butte Creek have additionally seen new fish screens and fish ladders.

Another USFWS-funded effort within the watershed is the Keeney Project. This project intends to restore 56 acres of almond orchard, located between the levees of Butte Creek near the Midway, to shaded riverine aquatic and native riparian habitat. The Center for Natural Lands Management has purchased the land and is managing the restoration effort utilizing a nursery stock of native plants from sources local to the site. Some of this native nursery stock may be used to help revegetate areas in the Butte Creek Ecological Preserve.

Another significant effort is underway in the lower part of the Butte Creek system. Ducks Unlimited, Inc. and the California Waterfowl Association, with funding from the CVPIA *Anadromous Fish Restoration Program*, are working with local landowners along the lower reaches of Butte Creek to initiate a program to improve fish passage through the Butte Sink and Sutter Bypass. All of these collaborative planning and implementation projects are geared towards successfully moving CALFED species of concern through the system. This proposal is meant to provide these special species with the best possible migrating, holding, and spawning habitat once they have circumvented and overcome the numerous natural and anthropogenic stressors found in the ocean, the Delta, the Sacramento River, and the lower sections of Butte Creek.

Technical Feasibility and Timing

The alternative to this proposal is to do nothing at all. Considering the past successes of this restoration

alternative, it seems even more justified to move forward with this collaborative proposal. The timing for the project is ideal and it provides continuity and synergy with other ongoing and proposed projects. Depending on the specifics of the revegetation efforts, a §404 US Army Corps of Engineers certification, §401 Regional Water Quality Control Board certification, and a DFG Streambed Alteration Agreement may be required.

Monitoring and Data Collection Methodology

Biological/Ecological Objectives

The objective of this proposal is to restore native biological communities on this severely impacted reach of Butte Creek. Certain tasks (see Table 2) will require monitoring of either revegetation (planting) success or the results of experimental manipulations. For example, the revegetation of the 3,800 feet of rip-rap (Phase III) will be monitored for both horticultural success, as percent survival of installed cuttings, and for the proportion of the rip-rapped bank that is covered by these survivors as a measure of the potential SRA habitat restored. The cobble-field restoration feasibility study (Phase IV) will require careful and timely visits by the monitor to quantify flows, depths, seedling establishment, and growth.

Monitoring Parameters and Data Collection Approach

Each task listed in the *Proposed Scope of Work* section will be monitored to ensure its timely implementation and completion. Monitoring will continue for the 3 year life of this grant. Monitoring plots and transects will be permanently marked to facilitate future (post-project) monitoring when future funding becomes available. The monitoring program will follow CMARP.

Data Evaluation Approach

Reports will be generated for the appropriate tasks on an annual basis.

Table 2. Monitoring and Data Collection Information

1) Biological /Ecological Objectives			
Hypothesis/Question to be Evaluated	Monitoring Parameter(s) and Data Collection Approach	Data Evaluation Approach	Comments/Data Priority
Phase II. Remove Exotic Flora Task 1	Survey of locations of exotic plants	Detailed map	Report on extent or coverage by exotic plants
Phase II. Task 2. Develop Plan			Exotic plant eradication plan
Phase II. Task 3. Implement Plan		Percent of mapped exotics that are treated	
Phase II. Task 4. Follow-up Treatment	Evaluate results from Task 3	Percent of mapped exotics that are treated	Final Report documenting result with recommendations
Phase III. Revegetation of New Rip-Rap. Task 1. Develop Plan			Revegetation Plan for rip-rap

Phase III. Task 2. Implement Plan	Survival by species	Percent survival; Percent of linear rip-rap with living plants	
Phase IV. Task 1. Pilot Study to Develop Methods for Cobble-Field Restoration	Flows; depths at time of seed-fall; establishment and growth of seedlings	Survival by species relative to flows, elevation above channel, and substrate	Final report
Phase IV. Comprehensive Restoration Strategy and Plan. Task 2. Compile Plan	Survey of specific reports	Specific locations for restoration of vegetation	

Local Involvement

This is collaborative and coordinated project involving all of the affected and interested parties, including the Butte Creek Watershed Conservancy, County of Butte, CSU, Chico, Durham Mutual Water District, and M&T Ranch. All parties are enthusiastic and interested in working together in this important planning and implementation process. Butte County's Board of Supervisors and Planning Commission have been notified in writing of this project (see attachment F). More importantly, however, Butte County has been involved in the development of the project's scope of work. Potentially, smaller adjacent landowners may need to be contacted with regard to the nature of revegetation or non-native removal work being conducted. These contacts would be made when appropriate.

Costs and Schedule to Implement Proposed Project

Table 3. Budget Costs

Project Phase and Task	Direct Labor Hours**	Direct Salaries and Benefits	Service Contracts	Materials and Acquisition Contracts	Miscellaneous and Other Direct Costs	Overhead Labor (general, admin and fee)	Total Costs
Phase I	100 hours	\$4,890	\$2,800	\$150,000	\$400	\$1,582	\$159,672
Phase II	3400 hours	\$44,855	\$30,000	\$13,500	\$1,000	\$15,881	\$105,236
Phase III	950 hours	\$24,290	\$20,000	\$10,000	\$1,000	\$7,767	\$63,057
Phase IV	1050 hours	\$33,048	\$28,876	0	\$1,000	\$10,744	\$73,668
Project Management	800 hours	\$21,091	\$2,800	0	\$14,300	\$6,717	\$44,908
Total Task	6,300 hours	\$128,174	\$84,476	\$173,500	\$17,700	\$42,691	\$446,541

** - Labor costs will be significantly offset with the use of volunteers.

Table 4. Quarterly Budget FY 1999

Phase	Quarterly Budget Oct. - Dec. 1999	Quarterly Budget Jan. - Mar. 2000	Quarterly Budget Apr. - June 2000	Quarterly Budget July - Sept. 2000	Total Budget FY 1999
Phase I	\$153,224.00	\$3,224.00	\$3,224.00	0	\$159,672.00
Phase II	\$13,154.50	\$13,154.50	\$13,154.50	\$13,154.50	\$52,618.00
Phase III	\$10,509.66	\$10,509.66	\$10,509.66	\$10,509.66	\$42,038.64
Phase IV	\$7,366.80	\$7,366.80	\$7,366.80	\$7,366.80	\$29,467.20
Project Management	\$4,490.90	\$4,490.90	\$4,490.90	\$4,490.90	\$17,963.60
Total	\$188,745.86	\$38,745.86	\$38,745.86	\$35,521.86	\$301,759.44

Table 4. cont. Quarterly Budget FY 2000

Phase	Quarterly Budget Oct. - Dec. 2000	Quarterly Budget Jan. - Mar. 2001	Quarterly Budget Apr. - June 2001	Quarterly Budget July - Sept. 2001	Total Budget FY 2000
Phase I	0	0	0	0	0
Phase II	\$13,154.50	\$13,154.50	\$13,154.50	\$13,154.50	\$52,618.00
Phase III	\$10,509.66	\$10,509.66	0	0	\$21,019.32
Phase IV	\$7,366.80	\$7,366.80	\$7,366.80	\$7,366.80	\$29,467.20
Project Management	\$4,490.90	\$4,490.90	\$4,490.90	\$4,490.90	\$17,963.60
Total	\$35,521.86	\$35,521.86	\$25,012.20	\$25,012.20	\$121,068.12

Table 4. cont. Quarterly Budget FY 2001

Phase	Quarterly Budget Oct. - Dec. 2001	Quarterly Budget Jan. - Mar. 2002	Quarterly Budget Apr. - June 2002	Quarterly Budget July - Sept. 2002	Total Budget FY 2001
Phase I	0	0	0	0	0
Phase II	0	0	0	0	0
Phase III	0	0	0	0	0
Phase IV	\$7,366.80	\$7,366.80	0	0	\$14,733.60
Project Management	\$4,490.90	\$4,490.90	0	0	\$8,981.80
Total	\$11,857.70	\$11,857.70	\$0	\$0	\$23,715.40

Schedule Milestones

Each Phase of this project, although interrelated with the other Phases, is autonomous and may be funded separately. The collaborating parties hope to see all Phases funded in order to initiate a comprehensive enhancement of this important 4-mile riparian reach of Butte Creek.

Phase I - Acquisition of 9-acre Myers Parcel

Task 1 - Copy of Appraisal, Copy of Phase I EA, Conservation Restrictions, Copy of Title.

Phase II - Identification and Removal of Non-Native Flora

Task 1 - Exotic Species Identification Report

Task 2 - Exotic Species Eradication Plan

Task 3 - N/A

Task 4 - Final Report documenting percentage of Exotic Flora on Preserve

Phase III - Revegetation of Rip-Rapped and Upland Areas

Task 1 - Rip-Rap and Upland Revegetation Plan

Task 2 - N/A

Phase IV - Restoration Strategy for Butte Creek Ecological Preserve

Task 1 - Report with a Quantified Prescription for Cobble-Field Management

Task 2 - Create Restoration Committee and Develop Comprehensive Restoration Plan

Project Management Phase

Task 1 - Quarterly Reports and Final Report

Cost Sharing

The real cost of such a comprehensive project would be substantially more than the suggested budget. A great deal of the cost has been augmented with the time and materials volunteered by individuals from the County of Butte, the Butte Creek Watershed Conservancy, M&T Ranch, and Durham Mutual Water Company, particularly during the restoration strategy development phase of this project. For Phase III of this project, the County of Butte, Office of Emergency Services will provide \$4,000 per year for 3 years for revegetation of the NRCS, *Emergency Watershed Program* rip-rap areas. Additionally, a significant amount of labor time associated with exotic removal and revegetation efforts throughout the life of the project will be offset with the use of local volunteers and student interns.

Applicant Qualifications

CALIFORNIA STATE UNIVERSITY, CHICO Statement of Capabilities for Watershed Research and Planning

The protection and enhancement of local creeks and watersheds by local community groups is a high priority at California State University, Chico. As a part of its community service mission, it is the policy of the University Research Foundation to organize teams for special projects and to provide the kinds of services described below.

Faculty: The primary mission of our faculty is teaching our own students. However, with funds generated from grants and contracts, our faculty often undertakes research, planning, and other community-based projects. Faculty who have particular expertise in watershed research and planning are listed on attached pages. Faculty can also be of service by supervising interns and conducting class projects that relate to the mission of the watershed protection groups (see below). Environmental education faculty are also available to assist local school teachers in creating and teaching curricula about our region's diverse natural environments.

Project Administration: The Research Foundation, as part of its regular operation, facilitates government and Foundation funding opportunities, makes contact with those organizations and provides assistance in grant proposal writing. Foundation personnel then administer the grant funds, provide auditing, and bookkeeping functions, and insure compliance with all government regulations and procedures.

Project Oversight: The Butte Creek Watershed Conservancy is a non-profit, landowner organization that was formed in September 1995 to encourage watershed-wide cooperation and communication between residents, landowners, water users, recreational users, and the local, state, and federal agencies working in the Butte Creek watershed.

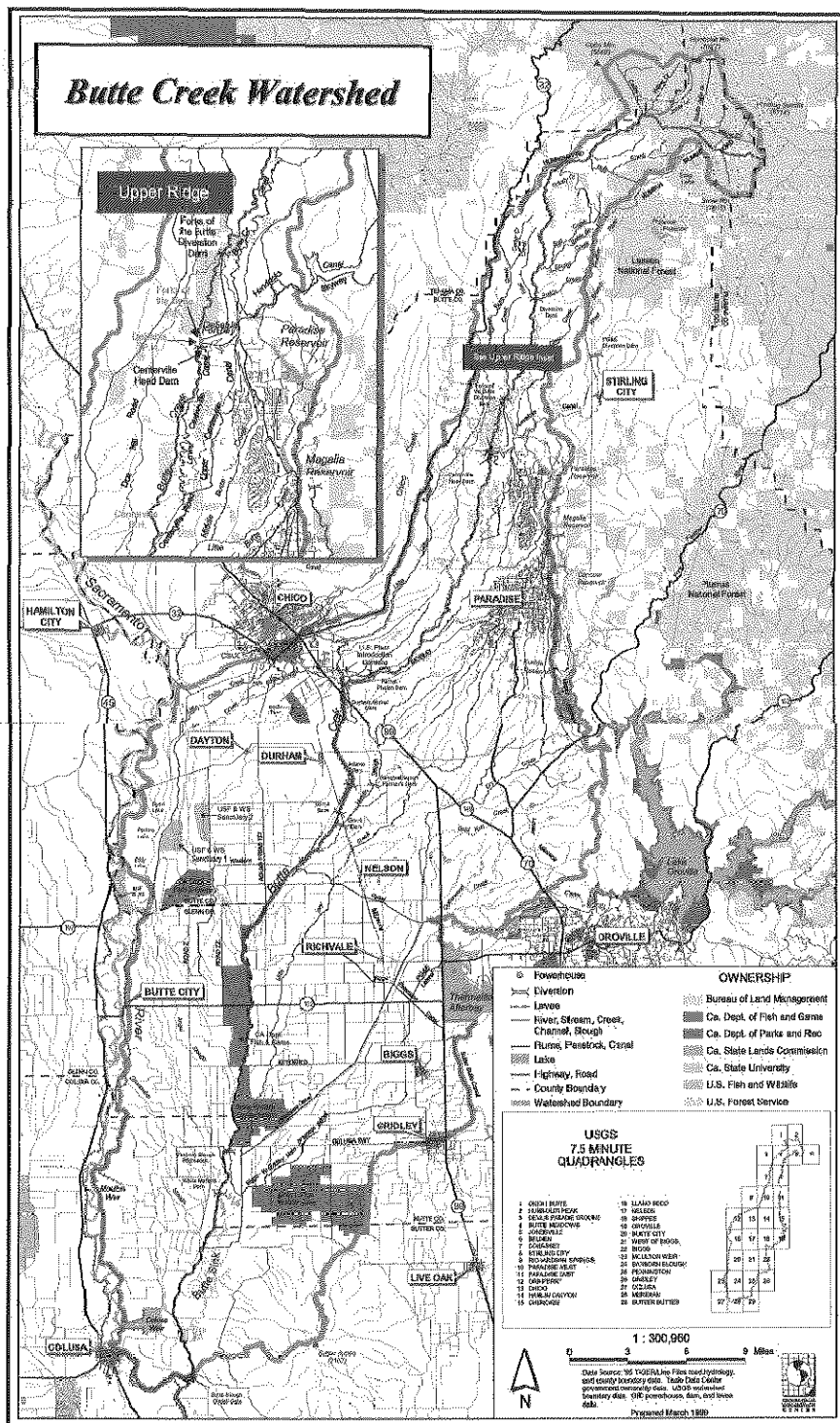
Volunteer Administration: The Butte Creek Education Project was established as part of an initial US Fish and Wildlife Service grant to establish a framework for the articulation of approved watershed education curriculum in several area school districts. The program has grown to include teachers and students participating in several restoration projects on Butte Creek that involve reestablishing native vegetation that was scoured away in the 1997 flood.

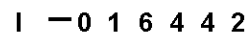
Project Personnel:

- Director:** **Dr. Donald Holtgrieve**, Professor of Geography and Planning, CSU, Chico. He teaches courses in water resources and environmental planning. Dr. Holtgrieve has been the recipient of many grants and awards, with a particular focus on the environment, specifically water quality and watershed management. He has extensive experience in directing grants awarded by both State and Federal Agencies, as well as official certification in Land Use, Transportation, and Wetlands Planning. Dr. Holtgrieve has supervised over 200 projects over the last 25 years. As Project Director, Dr. Holtgrieve will provide assurance that adequate resources are provided to the project, and will be the first line of communication between CALFED and CSU, Chico.
- Manager:** **Brendan J. Vieg**, Watershed Coordinator, Butte Creek Watershed Conservancy. Masters Program in Resource Management and Environmental Planning, Geography, San Francisco State University. He worked for the San Francisco Bay Regional Water Quality Control Board/Wetlands Division permitting §401/404 water quality certifications for San Francisco County. He is the Project Manager for the *Existing Conditions Report/Watershed Management Strategy* and the Fluvial Geomorphology Study for Butte Creek.
- Restoration Ecologist:** **F. Thomas Griggs, Ph.D.**, Adjunct Professor, Department of Biological Sciences, CSU, Chico. Dr. Griggs recently joined CSU, Chico after a 17-year career with *The Nature Conservancy* where he was responsible for land management activities and managed the development of riparian forest restoration methods on the Sacramento River over the past 10 years.
- Volunteer Coordinator:** **Matt Quinn**, Graduate Associate, Watershed Projects, CSU, Chico. BA degree in Geography, CSU, Chico, emphasis on physical geography. He has worked for the Watershed Projects for the past two years, taking leadership roles in numerous projects. He has managed many restoration and revegetation projects in the Butte County area, utilizing background knowledge from two years of managing a landscaping company. Currently he is planning a public watershed education series as well as working on a road-related sediment study in the upper watershed of Butte Creek.

ATTACHMENT A

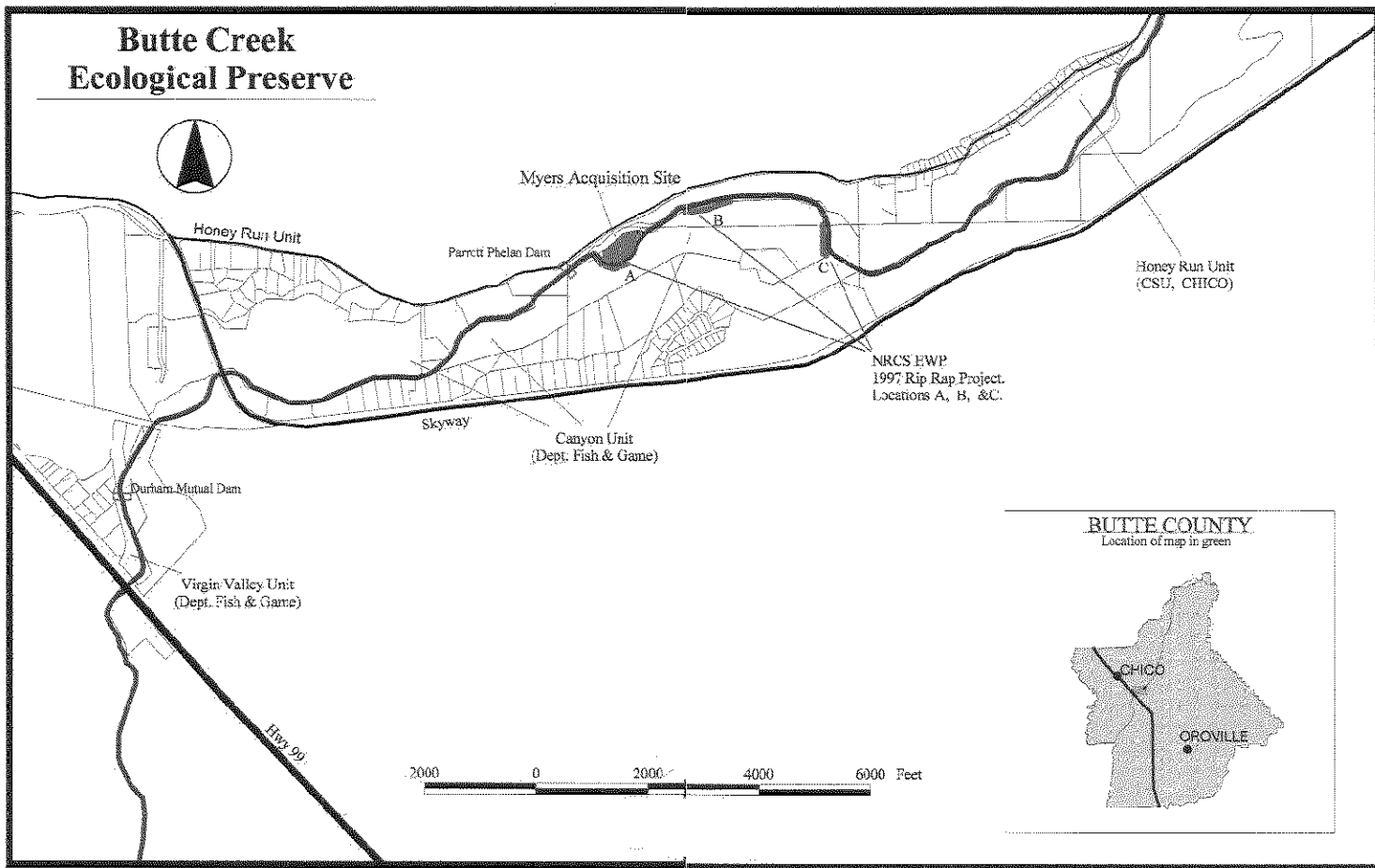
Butte Creek Watershed





ATTACHMENT B

1-016444



NCTE; THIS MAP IS FOR VISUAL ORIENTATION ONLY.

CSU, CHICO WATERSHED PROJECTS
BUTTE CREEK WATERSHED CONSERVANCY

1-016444

ATTACHMENT C

MEMORANDUM OF UNDERSTANDING
between
California State University, Chico, Research Foundation
and
State of California, Department of Fish and Game

This Memorandum of Understanding (MOU) is made between the California State University, Chico, Research Foundation (CSUC) and the State of California, Department of Fish and Game (DFG).

I. INTRODUCTION

The cooperative management Canyon Unit and the Virgin Valley Unit of the Butte Creek Ecological Preserve will protect significant biological resources and connected to the CSUC Ecological Reserve (historically know as the McAmis property) will provide consistent management and protection for three and a half miles of Butte Creek. This riparian corridor has rich ecological resources such as cottonwood riparian, oak riparian, and oak, pine, mixed chaparral. These lands are part of the migration, holding and spawning corridor for threatened aquatic species such as spring run chinook and steelhead trout and migration, and nesting areas for threatened avian species such as bald eagles and Swainson's hawks. It is also habitat for many native populations of plants and animals that are threatened by urban encroachment.

II. MUTUAL BENEFITS

The cooperative management of the Butte Creek properties by CSUC and DFG will emphasize fish and wildlife species and their habitats, including cottonwood and oak riparian habitats, blue oak woodland habitat, mixed chaparral habitat, and annual grassland habitat. Additionally, management will encompass providing limited, improved public access along the corridor. Management issues such as control of alien species, restoration of impacted habitats and use as an educational resource are best addressed with a partnership approach.

III. PURPOSE

The purpose of this agreement is to establish the basis of a cooperative partnership of people, organizations, and facilities with the common need to their individual abilities to manage the property.

IV. RESPONSIBILITIES

1. The California Department of Fish and Game agrees:

- A. To provide warden patrols to protect the resources of the preserves.
- B. To provide other resources through a mutual agreement when the assistance of DFG would provide the most appropriate support.
- C. To cooperate in the development and implementation of projects.
- D.

2. The Research Foundation, California State University, Chico agrees:
 - A. To provide day to day services to protect, restore, and enhance the resources of the preserves.
 - B. To cooperate in the development and implementation of projects.
 - C. To initiate a management plan to be followed with agreement of both agencies.
 - D.
3. The DFG and CSUC mutually agree:
 - A. To work cooperatively to develop management proposals that improve and enhance riparian habitats for fish and wildlife species.
 - B. To cooperatively develop a mutually approved long range management strategy for the area.
 - C. To manage for resource values such as recreation where the development of the values are consistent and compatible with the fish and wildlife emphasis of the area.
 - D.

V. IT IS MUTUALLY AGREED AND UNDERSTOOD BY THE PARTIES THAT:

1. Specific studies, activities or projects which involve the transfer of money, services or property between the parties to this MOU will require execution of separate agreements or contracts. Each subsequent agreement or arrangement involving the transfer of money, services or property between the parties to this MOU must comply with all applicable statutes and regulation, including those statutes and regulations applicable to procurement activities, and must be independently authorized by appropriate statutory authority.
2. Nothing in this agreement shall be construed as obligating the parties to expand appropriations or to enter into any contract or other obligation.
3. This instrument is neither a fiscal nor funds obligation document. Any endeavor involving reimbursement or contribution of funds between the parties to this instrument will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This instrument does not provide such authority. Specifically, this instrument does not establish authority for non-competitive award to the cooperator of any contract or other agreement. Any contract or agreement for training or other services must fully comply with all applicable requirements for competition.
4. This MOU in no way restricts either party from participating in similar activities or arrangements with other public or private agencies, organizations, or individuals.

5. Modification within the scope of this MOU shall be made by the issuance of a bilaterally executed modification prior to any changes being performed.
6. This MOU may be terminated in whole or in part by mutual agreement of the parties at any time before the date of expiration.
7. This MOU is executed as of the last date shown below and expires on March 1, 2004 at which time it will be reviewed and renewed pending approval of the parties.

VI. PRINCIPAL CONTACTS

The principal contacts for this instrument are:

Banky Curtis
CA Department of Fish and Game
Sacramento Valley-Central Sierra
1701 Nimbus Rd., Suite A
Rancho Cordova, CA 95670
916-358-2900

Scott McNall
Provost and Vice President for Academic Affairs
California State University, Chico
Chico, CA 95929-0110
530-898-6101

IN WITNESS WHEREOF, the parties hereto, have executed this agreement as of March 1, 1999.

Gay W. Miller Acting Regional Manager 4/12/99
DEPARTMENT OF FISH AND GAME DATE

Scott McNall
RESEARCH FOUNDATION 3/29/99
CALIFORNIA STATE UNIVERSITY, CHICO DATE

ATTACHMENT D



BUTTE CREEK

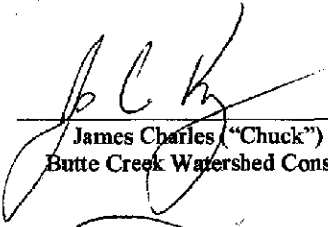
WATERSHED CONSERVANCY

P.O. Box 1611, Chico CA 95927-1611

Linda Meyers
554 Honeyrun Road
Chico, California 95928

Re: Myers Property Acquisition (Asking Price - \$229,000)

Upon acquisition of grant funding, proper appraisal by funding agencies (funder), and approval of the Butte Creek Watershed Conservancy Board of Directors, the Butte Creek Watershed Conservancy (buyer) is interested in purchasing from seller the approximately 10-acre parcel located at 554 Honeyrun Road, Chico, California. The undersigned have read the foregoing and agree to work cooperatively in this process.


James Charles ("Chuck") Kutz
Butte Creek Watershed Conservancy

04-14-99
Date


Linda Myers (seller)

4-14-99
Date

ATTACHMENT E

G. Mathias Kondolf, Ph.D.

Geomorphology, Hydrology, and Water Resources

23 March 1999

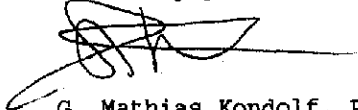
Professor Don Holtgrieve
Department of Geography and Planning
California State University, Chico
Chico, California 95929-0425

Dear Don,

I have reviewed the aerial photos and visited the Honey Run Unit along Butte Creek. It appears to be a good candidate for upland restoration and I see no reason to delay upland restoration there pending outcome of the fluvial geomorphic study.

If you have any questions, please contact me at the number below.

Sincerely yours,



G. Mathias Kondolf, Ph.D

ATTACHMENT F

CSU, Chico Research Foundation
California State University, Chico
Chico, California 95929-0870
(530) 898-4044; FAX: (530) 898-6804

April 12, 1999

Butte County Board of Supervisors
Beeler, Davis, Dolan, Houx and Josiassen
25 County Center Drive
Oroville, CA 95965

Kristin Cooper Carter, Coordinator
Environmental Resource Program
Office of Sponsored Programs
California State University, Chico
Chico, CA 95929-0870

Dear Supervisors Beeler, Davis, Dolan, Houx and Josiassen,

In compliance with the requirements of the CALFED Bay-Delta Program's Ecosystem Restoration Program and Strategic Plan 1999 Proposal Solicitation Package, we are formally notifying you of the submission of eight grant applications that reside either in part or fully within the boundaries of Butte County.

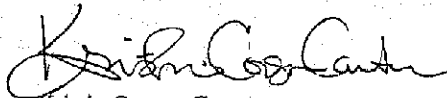
A list of the proposals submitted follows:

1. Upper Butte Creek Road Management Improvement Project
2. Butte Creek Watershed Education Program
3. Cherokee Watershed Sediment Transport and Water Quality Analysis
4. Butte Creek Howard Slough Riparian Restoration
5. Development of a Watershed Management Strategy for Little Chico Creek Watershed, Phase II and III.
6. Watershed Coordination for Big and Little Chico Creeks
7. Butte Creek Acquisition, Revegetation, and Restoration Assessment Project
8. Sacramento Valley: Eastside Small Streams

Executive summaries of all of these proposals will be forthcoming.

If you have any questions about these proposals, please feel free to call my office at (530) 898-5026.

Sincerely,



Kristin Cooper Carter
cc. Butte County Planning Department,
Thomas Parilo
Project Coordinators
Jeff Wright

CSU, Chico Research Foundation
California State University, Chico
Chico, California 95929-0870
(530) 898-4044; FAX: (530) 898-6804

April 12, 1999

Tom Parilo
Butte County Planning Department
7 County Center Drive
Oroville, CA 95965

Kristin Cooper Carter, Coordinator
Environmental Resource Program
Office of Sponsored Programs
California State University, Chico
Chico, CA 95929-0870

Dear Mr. Parilo

In compliance with the requirements of the CALFED Bay-Delta Program's Ecosystem Restoration Program and Strategic Plan 1999 Proposal Solicitation Package, we are formally notifying you of the submission of eight grant applications that reside either in part or fully within the boundaries of Butte County.


A list of the proposals submitted follows:

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8. Sacramento Valley: Eastside Small Streams

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If you have any questions about these proposals, please feel free to call my office at (530) 898-5026.

Sincerely,



Kristin Cooper Carter
Butte County Board of Supervisors
Project Coordinators
Jeff Wright

BUDGET INFORMATION - Non-Construction Programs

OMB Approval No. 0348-0044

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Phase I		\$	\$	\$ 159,672	\$	\$159,672
2. Phase II				\$105,236		\$105,236
3. Phase III				\$63,058		\$63,058
4. Phase IV				\$73,668		\$73,668
5. Project Management				\$44,909		\$44,909
6. TOTALS		\$0	\$0	\$446,543	\$0	\$446,543

SECTION B - BUDGET CATEGORIES

6. OBJECT CLASS CATEGORIES	GRANT PROGRAM, FUNCTION OR ACTIVITY						Total (\$6)
	(1) Phase I	(2) Phase II	(3) Phase III	(4) Phase IV	(5) Management		
a. Personnel	\$ 3,766	\$ 37,811	\$ 18,494	\$ 25,580	\$ 15,994		\$101,645
b. Fringe Benefits	\$1,124	\$7,044	\$5,796	\$7,468	\$5,097		\$26,529
c. Travel	\$300	\$500	\$500	\$500			\$1,800
d. Equipment		\$8,500	\$10,000				\$18,500
e. Supplies	\$100	\$500	\$500	\$500	\$4,300		\$5,900
f. Contractual	\$2,800	\$30,000	\$20,000		\$12,800		\$65,600
g. Construction				\$28,876			\$28,876
h. Other	\$150,000	\$5,000					\$155,000
i. Total Direct Charges (sum of 6a-6h)	\$158,090	\$89,355	\$55,290	\$62,924	\$38,191		\$403,850
j. Indirect Charges	\$1,582	\$15,881	\$7,767	\$10,744	\$6,717		\$42,691
k. TOTALS (sum of 6i and 6j)	\$159,672	\$105,236	\$63,057	\$73,668	\$44,908		\$446,541
7. PROGRAM INCOME	\$0	\$0	\$0	\$0			\$0

Standard Form 424A (Rev. 4-92)

1-016457

1-016457

Previous Edition Usable		Authorized for Local Reproduction				Prescribed by OMB Circular A-102	
(a) Grant Program		(b) Applicant	(c) State	(d) Other sources	(e) TOTALS		
8. Phase I		\$0	\$0	\$0	\$0		
9. Phase II					\$0		
10. Phase III					\$0		
11. Phase IV					\$0		
12. TOTALS (sum of lines 8 and 11)		\$0	\$0	\$0	\$0		
SECTION 2: FORECASTED FUND NEEDS							
Total for 1st Year		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter		
13. Federal	\$301,750	\$180,745	\$38,746	\$38,746	\$35,522		
14. Non-Federal	\$0	\$0	\$0	\$0	\$0		
15. TOTAL (sum of lines 13 and 14)	\$301,750	\$188,745	\$38,746	\$38,746	\$35,522		
SECTION 3: BUDGET ESTIMATES OF FEDERAL FUNDS REQUIRED TO BE PAID BY THE PROJECT							
(a) Grant Program		(b) First	(c) Second	(d) Third	(e) Fourth		
16. Phase I		\$159,672	\$0	\$0	\$0		
17. Phase II		\$52,618	\$52,618	\$0	\$0		
18. Phase III		\$42,039	\$21,019	\$0	\$0		
19. Phase IV		\$29,467	\$29,467	\$14,734	\$0		
20. TOTALS (sum of lines 16 - 19)		\$283,796	\$103,104	\$14,734	\$0		
SECTION 4: OTHER BUDGET INFORMATION							
21. Direct Charges:	\$403,852	22. Indirect Charges		Base (Salaries & Wages)			
				\$101,645			
				Total Indirect (42% of S&W)			
				\$42,691			
23. Remarks							

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CSU, Chico Research Foundation
California State University, Chico
Chico, California 95929-0870
(530) 898-4044; FAX: (530) 898-6804

Indirect costs are those costs that cannot by their nature be specified on a project by project basis in the same way that line item direct costs can. Generally, indirect costs are those that support project activities, as compared to those that are directly related to specific project tasks. Universities establish an indirect cost rate with the Federal Government by following the appropriate provisions of OMB Circular A-21. This circular was officially modified and reissued on May 8, 1996, which, among other things, changed the term "indirect costs" to "Facilities and Administrative (F&A) Costs." The circular spells out two methods for determining such costs. We use the "Simplified Method" for institutions with less than \$10 million in awards annually from the Federal Government. Currently, we have two rates approved by our Health and Human Services Regional Office (Region IX) contacts: 42% of salaries and wages for on-campus projects and 18.5% of salaries and wages for off-campus projects. May Wong (415-556-1704) is our contact and can provide you with verification of our rate which her office approves after reviewing our financial statements.

Typically indirect costs are intended to generally cover costs such as facilities (including the space itself as well as utilities and janitorial services), general administration, insurance, "infrastructure" (for instance, availability of such resources as library holdings and other resources—e.g., access to electronic databases, communication links, computing backbone, and the like), grant and contract management services, cost of advancing funds for projects which pay in arrears and similar costs.

U.S. Department of the Interior

Certifications Regarding Debarment, Suspension and
Other Responsibility Matters, Drug-Free Workplace
Requirements and Lobbying

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used; use this form for certification and sign; or use Department of the Interior Form 1954 (DI-1954). (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12.)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters -
Primary Covered Transactions

CHECK ☒ IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE.

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -
Lower Tier Covered Transactions

CHECK ☐ IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART C: Certification Regarding Drug-Free Workplace Requirements

☒ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL.

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about--
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted --
 - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

Butte County

Check ___ if there are workplaces on file that are not identified here.

PART D: Certification Regarding Drug-Free Workplace Requirements

☐ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL.

Alternate II. (Grantees Who Are Individuals)

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made

PART E: Certification Regarding Lobbying
Certification for Contracts, Grants, Loans, and Cooperative Agreements

CHECK IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND
THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT;
SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.

CHECK IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL
LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR
SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL



TYPED NAME AND TITLE Jeff Wright, Director, Office of Sponsored Programs

DATE 4-12-99

ASSURANCES - NON-CONSTRUCTION PROGRAMS

c reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

I, duly authorized representative of the applicant, I certify that the applicant:

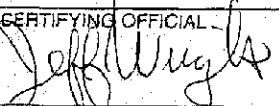
1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §734), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-648) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.

Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.

Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL  Jeff Wright		TITLE Director, Office of Sponsored Programs	
APPLICANT ORGANIZATION The CSU, Chico Research Foundation		DATE SUBMITTED 4-16-99	